

Sub A1

2. The immunostimulating composition described in claim 1 wherein the antigen is pre-encapsulated into a conformationally stabilizing hydrophilic matrix consisting of an appropriate mono, di- or tri-saccharide or other carbohydrate substance by lyophilization prior to its final encapsulation into the PLG microsphere by a solvent extraction process employing acetonitrile as the polymer solvent, mineral oil as the emulsion's external phase, and heptane as the extractant.

3. The immunostimulating compositions described in claims 1 or 2 wherein the immunogenic substance is a native (oligomeric) HIV-1 envelope antigen that is conformationally stabilized by the polymer matrix and serves to elicit in animals the production of HIV specific cytotoxic T lymphocytes and antibodies preferentially reactive against native HIV-1 envelope antigen.

4. The immunostimulating compositions described in claim 3 wherein the amount of said immunogenic substance within the microcapsule comprises between 0.5% to 5.0% of the weight of said composition.

5. The immunostimulating compositions describe in claim 4 wherein the relative ratio between the amount of the lactide:glycolide components of said matrix is within the range of 52:48 to 0:100.

6. The immunostimulating compositions described in claim 5 wherein the molecular weight of said copolymer is between 4,000 to 50,000 daltons.

7. A vaccine [consisting of] comprising a blend of the immunostimulating compositions of claim 5 [described in claims 5 or 6].

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8. The immunostimulating compositions described in claim 5, employed as a parenterally [parentally] administered vaccine wherein the diameter size range of said vaccine microspheres lies between 1 nanometer and 20 microns.

9. The immunostimulating compositions described in claim 5, employed as a mucosal vaccine wherein the size of more than 50% (by volume) of said vaccine microspheres is between 5 to 10 microns in diameter.

10. A composition in accordance with claim 1 wherein the microspheres further contain a pharmaceutically-acceptable adjuvant.

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11. A vaccine [consisting of] comprising a blend of the immunostimulating compositions of claim 6 [described in claims 5 or 6]

12. The immunostimulating compositions described in claim 6 employed as a parenterally [parentally] administered vaccine wherein the diameter size range of said vaccine microspheres lies between 1 nanometer and 20 microns.

13. The immunostimulating compositions described in claim 7 employed as a parenterally [parentally] administered vaccine wherein the diameter size range of said vaccine microspheres lies between 1 nanometer and 20 microns.

14. The immunostimulating compositions described in claim 6 employed as a mucosal vaccine wherein the size of more than 50% (by volume) of said vaccine microspheres is between 5 to 10 microns in diameter.